



Memorandum

To: Claire Maulhardt, Capital Region Water

From: Terry Meenaghan, Jeff Eveland

Date: September 16, 2021

Subject: Regulator Modification Overview

During the September 14, 2021 remote meeting between CRW and the regulatory agencies, the planned activities for modifying the CSO regulator structures were discussed. This memo was prepared, at the request of the agencies, to provide a written overview of those activities. The modifications are summarized briefly below and described in the following subsections.

Ex. 5 Deliberative Process (DP)

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Table 1. Phased Regulator Modifications.

Catchment	Planning Area	Chain Open B&B Gates	Raise Weir / Required Increase	Remove Restriction	Expand Connector Pipe	Interceptor Backflow Prevention
S-004	Riverside	✓	✓ (+1 ft)	✓		✓
S-005	Riverside	✓	✓ (+1 ft)	✓		✓
S-049	Uptown	✓	✓ (+3 ft)			✓
S-050	Uptown	✓	✓ (+3 ft)			✓
S-051	Uptown	✓	✓ (+1 ft)			✓
S-006	Uptown	✓	✓ (+3 ft)			✓
S-007	Uptown	✓	✓ (+1 ft)			✓
S-008	Uptown	✓	✓ (+2 ft)			✓
S-009	Uptown	✓				✓
S-010	Uptown	✓	✓ (+2 ft)			✓
S-011	Uptown	✓	✓ (+1.25 ft)			✓

Table 1. Phased Regulator Modifications.

Catchment	Planning Area	Chain Open B&B Gates	Raise Weir / Required Increase	Remove Restriction	Expand Connector Pipe	Interceptor Backflow Prevention
S-012	Middle Front Street	✓	✓ (+1 ft)	✓		✓
S-013	Middle Front Street	✓	✓ (+1 ft)			✓
S-014	Middle Front Street	✓	✓ (+2.75 ft)	✓		✓
S-015	Middle Front Street	✓	✓ (+1 ft)	✓		✓
S-016	Middle Front Street	✓	✓ (+1 ft)	✓		✓
S-052	Middle Front Street	✓	✓ (+1.75 ft)			✓
S-053	Middle Front Street	✓	✓ (+1 ft)			✓
S-054	Middle Front Street	✓	✓ (+1 ft)	✓		✓
S-055	Middle Front Street	✓	✓ (+1 ft)			✓
S-056	Middle Front Street	✓	✓ (+1 ft)	✓		✓
S-017	Lower Front Street	✓	✓ (+1 ft)			✓
S-018	Lower Front Street	✓	✓ (+3 ft)			✓
S-019	Lower Front Street	✓	✓ (+1 ft)	✓		✓
S-020	Lower Front Street	✓	✓ (+1 ft)			✓
S-057	Lower Front Street	✓				✓
S-058	Lower Front Street	✓				✓
S-021	Upper Paxton Creek - West	✓	✓ (+3 ft)*	✓		✓
S-022	Upper Paxton Creek - West	✓	✓ (+3 ft)*			✓
S-024	Upper Paxton Creek - West	✓	✓ (+2.5 ft)*	✓		✓
S-027	Upper Paxton Creek - West					
S-028	Upper Paxton Creek - West	✓	✓ (+1 ft)			✓
S-023	Upper Paxton Creek - East	✓	✓ (+1 ft)	✓		✓

Table 1. Phased Regulator Modifications.

Catchment	Planning Area	Chain Open B&B Gates	Raise Weir / Required Increase	Remove Restriction	Expand Connector Pipe	Interceptor Backflow Prevention
S-025	Upper Paxton Creek - East	✓	✓ (+2 ft)			✓
S-026	Upper Paxton Creek - East	✓	✓ (+1.25 ft)	✓		✓
S-030	Middle Paxton Creek - West	✓	✓ (+1 ft)			✓
S-032	Middle Paxton Creek - West					
S-037	Middle Paxton Creek - West	✓	✓ (+1 ft)	✓	✓	✓
S-038	Middle Paxton Creek - West	✓	✓ (+3 ft)			✓
S-041	Middle Paxton Creek - West					
S-029	Middle Paxton Creek - East	✓	✓ (+1 ft)	✓		✓
S-031	Middle Paxton Creek - East	✓	✓ (+1 ft)	✓	✓	✓
S-033	Middle Paxton Creek - East	✓	✓ (+1.25 ft)	✓		✓
S-034	Middle Paxton Creek - East	✓	✓ (+1.5 ft)	✓		✓
S-039	Middle Paxton Creek - East	✓	✓ (+1.75 ft)	✓		✓
S-040	Middle Paxton Creek - East	✓	✓ (+1.75 ft)	✓		✓
S-042	Lower Paxton Creek	✓	✓ (+1 ft)	✓		✓
S-043	Lower Paxton Creek	✓	✓ (+1 ft)	✓		✓
S-044	Lower Paxton Creek	✓	✓ (+1 ft)			
S-045	Lower Paxton Creek	✓	✓ (+3 ft)			✓
S-046	Lower Paxton Creek	✓	✓ (+3 ft)			✓
S-048	Lower Paxton Creek	✓	✓ (+3 ft)	✓		✓
S-059	Lower Paxton Creek		✓ (+3 ft)	✓		
S-060	Hemlock Street					
S-061	Hemlock Street	✓	✓ (+1 ft)	✓		✓

Table 1. Phased Regulator Modifications.

Catchment	Planning Area	Chain Open B&B Gates	Raise Weir / Required Increase	Remove Restriction	Expand Connector Pipe	Interceptor Backflow Prevention
S-062	Hemlock Street	✓	✓ (+1 ft)	✓		✓
S-063	Hemlock Street	✓	✓ (+1 ft)	✓	✓	✓
S-064	Hemlock Street	✓	✓ (+1 ft)	✓		✓

Color Coding:

1. Phase 1A regulator modifications.

2. Phase 1B regulator modifications.

3. Phase 2 regulator modifications.

4. Phase 3 regulator modifications.

5. Regulator modifications for sewer separation candidates will not be implemented.

6. Bold, red font indicates weir raises not included in the original CBH₂OPP.

*Final weir raises for CSOs 021, 022, and 024 to be evaluated further.

Adaptive Management

These modifications are based upon the H/H model with design phase Front Street pump curves, set points, and operation logic and may change as final field verified pump station values are input into the model. The specific details for any of the CSO control modifications will need to be flexible under the adaptive management principal and allow the selected elements, dimensions, and implementation phasing of the modifications for each individual structure to evolve as the H/H model is updated to reflect completed projects and monitoring data.